Drawing on Innovation
CENTRAL WIRE INDUSTRIES

Central Wire
6509 Olson Road
Union, IL 60180

Mr. John Nordine
U. S. EPA Region 5
RCRA Enforcement & Compliance Assurance Branch (LU-16)
77 West Jackson Boulevard
Chicago, IL 60604

RE: Central Wire, Union, IL Monthly Progress Report and Attachments, JUNE 2018 Monthly Progress Report

I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to evaluate the information submitted. I certify that the information contained in or accompanying this submittal is true, accurate, and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: [signature]

Name: B. Kuog (for Tom Herewald, VP Opns)

Title: Gen Mgr

Date: 7/20/18

Autumnwood ESH Consultants
6539 Autumnwood Court
Mount Pleasant, Wisconsin 53403
Phone: 262.237.1130

15 July 2018

Mr. John Nordine
U.S. EPA Region 5
RCRA Enforcement and Compliance Assurance Branch (LU-16)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Central Wire, Union, Illinois RCRA CMI Monthly Progress Report - June 2018
EPA ID: ILD005178975

Dear Mr. Nordine:

Enclosed please find the RCRA CMI Monthly Progress Report for the Central Wire, Inc. (CWI) facility located in Union, Illinois for June 2018.

This report includes the eDMR for the groundwater pump & treat facility, the NPDES laboratory analytical reports, which include the effluent data used in the eDMR. It also includes the Extraction Well 1 and 2 influent data and the South Branch Nursery well no. 1 (irrigation) and well no. 2 (restroom) analytical data for Volatile Organic Compounds which are included in the 6-2018 NPDES Analytical Report file. Lastly, the analytical data from the semiannual RCRA monitoring and residential well sampling is included in this report.

If you have any comments or questions regarding the progress of this project, please contact me at (262) 237-1130.

Sincerely,

Autumnwood ESH Consultants, LLC

John W. Thorsen, P.E.

JWT: jt

encl

cc: Joyce Munie IEPA
Robert Kay USGS
Gerald W. Ruopp Central Wire
Robert Johnson Central Wire

MONTHLY PROGRESS REPORT
Central Wire Union, Illinois Site
June 2018

1 Progress Made This Reporting Period

Groundwater Pump & Treat System

In this reporting period Central Wire Inc. (CWI) continued the operation and maintenance of the groundwater extraction and treatment (P&T) system. CWI treated an average of 307,000 gallons per day (GPD) with a maximum daily flow of 319,000 GPD. Table 1, attached, lists the average daily P&T volumes by month from January 2015 through June 2018. The influent flow to the pump and treat system has been reduced by about 30,000 gallons per day per month since November 2017. CWI is working with another well driller to get estimates and quickly address the flow reduction situation.

The laboratory analytical report for the pump and treat effluent sample were collected on June 21, 2018 and arrived at Test America Laboratory on June 22, 2018 at 2.2° C.

The monthly NPDES sample met effluent limitations for pH, 1,1,1-Trichloroethane (TCA), Trichloroethene (TCE) and Tetrachloroethene (PCE). The electronic Discharge Monitoring Report (eDMR) for the month is attached to this report.

South Branch Nursery Well Samples

The South Branch Nursery well samples [well no. 1 [(irrigation) and well no.2 (restroom)] well samples were collected at the same time and sent to the analytical laboratory in the same batch. There were no volatile organic compound detections found in the South Branch Nursery. South Branch Nursery locations are provided in Figure 1.

CWI Quarterly Extraction Well Samples

These samples are collected quarterly in the third month of the calendar quarter. Samples were collected in June and the results are provided in Table 2, attached, which shows the quarterly data back to the first quarter of 2014.

The estimated Blended Influent Pump & Treat Concentration is based on EW-1 pumping about twice as much as EW-2.

EPA has requested that CWI provide information on EPA Maximum Contaminant Limits (MCL) exceedances, trends in concentration of major contaminants through time, potential effects of decreased pumping in EW-2 on results (TCE, PCE & TCA trends appear to mirror pumping trends) and the implications for plume capture.

There were no MCL exceedances for the Chemicals of Concern in Extraction Well No. 1. The levels of TCE have decreased from a high of 15 µg/L in 2Q2014 to the current low

value of 0.8 µg/L in 2Q2018. This value may be an outlier given the values have been between 6.5 and 7.5 µg/L for the past 10 quarters. PCE has exceeded the MCL only once in EW-1 in 2Q2014. For TCA, there have been no MCL exceedances and the values have ranged from 0.2 to 18 µg/L, well below the MCL of 200 µg/L, though recent samples have been in the 3.4 to 4.4 µg/L range. For 1,1- Dichloroethene (DCE), the value for this quarter may be an outlier since 10 of the 13 samples since 2Q2015 have exceeded the MCL, ranging 7.0 to 9.4 µg/L with no apparent trend. For cis-1,2-DCE, this value may also be an outlier since, in 18 samples, the MCL was exceeded 13 times.

For Extraction Well No. 2 (EW-2), TCE has exceeded the MCL in each of the 18 samples. Values range from 6.8 to 23 µg/L with no apparent trend, though the high of 23 µg/l was observed in 2Q2014 and the last four quarters have averaged 8.8 µg/L. For PCE the values range from anomalies of 0 and 1.7 µg/L to in the upper 20s and 30s in µg/L with a slight downward trend from 38 µg/L in 2Q2014 to 28 µg/L in 2Q2018. TCA values in EW-2 were all below the MCL and ranged from 2.9 to 54 µg/L. For DCE, all values but 3Q2017 were below the MCL of 7 µg/L. The 3Q2017 slightly exceeded the MCL at 9.1 µg/L. There were no issues with cis-1,2-DCE in EW-2.

Regarding potential effects of decreased pumping in EW-2, there does not appear to be a trend associated with the decreased production from EW-2.

The decreased production in EW-2 does have implications for reduced plume capture, but at this time CWI is focusing on increasing production in EW-2 as opposed to evaluating the capture zone.

South Branch Nursery Wells

Central Wire has submitted the McHenry County Storm Water Management permit applications for the replacement irrigation well (if needed) and the pump & discharge well. CWI has received comments on both application and expects to respond to those comments by the end of July.

Irrigation Well Pumpage

Over the month Central Wire personnel read the hour meter on the Central Sod well pump engines for the Route 176 and the Kunde Rd. irrigation wells on a weekly basis. Table 3 provides the data collected from the hour meters on the pump engines. This data is used in Table 4, attached, which plots the groundwater elevations against the daily precipitation and weekly irrigation well pumpage at Central Sod farms. The precipitation data is from the National Weather Service's Marengo station except July 1 and 2 which was taken from the Harvard station because no July precipitation data was not available from the National Weather Service for the Marengo station.

Table 3
Summary of 2018 Irrigation Pumping Hours per Week at Central Sod Farms
June 1 through July 2, 2018

Date of Hour Meter Reading	Route 176 Pump		Kunde Rd. Pump		Hours of Irrigation Well Pumping/Week
	Hour Meter Reading	Hours Pumped	Hour Meter Reading	Hours Pumped	
6/1/2018	6979	0	4762	0	0
6/4//2018	6979	0	4772	10	10
6/11/2018	6983	4	4779	7	11
6/18/2018	6983	0	4793	14	14
6/25/2018	6983	0	4800	7	7
7/2/2018	6985	2	4816	16	18
Totals		**6**		**54**	**60**

Regarding comparing the manual groundwater measurements to the data logger, CWI cannot compare the manual readings for June since CWI only had data through May 19 (due to the data logger's battery running down since it was in the well over the winter) and the manual reading was taken on June 1. CWI will continue this practice next month.

Table 4 shows the groundwater levels plotted against daily precipitation and weekly irrigation well pumpage from June 1 to July 2, 2018.

The groundwater elevation during this period reached its highest level on June 29 at 817.876 feet above mean sea level. The groundwater elevation reached its low on June 6 at 815.34 feet above mean sea level. The variance during June was 2.536 feet in monitoring well DGW-2I.

June 2018 RCRA Semiannual Monitoring & Residential Well Sampling Event

The 2018 spring semiannual RCRA CMI groundwater and residential well sampling event was conducted on June 19 and 20, 2018. The locations of the monitoring wells and the residential wells are provided on Figure 2. The data is summarized in Table 4. The results / trends are summarized below. The historical data and plots of the data are provided in Attachment 1 in Figures 2 through 12. The laboratory reports for this sampling event are in Attachment 2. Table 5, attached, provides a crosswalk between the residential well owner's name (which is on Figure 2) and the address, which is the Sample Identification in the analytical report for the residential wells. The well stabilization field data is included in Table 6, attached.

MW (Monitoring Well) 2 – No MCLs have been exceeded since December 2007, see Figure 1.

MW-4 – The PCE MCL (5 µg/L) has been exceeded since monitoring began in 1995 and since 2010 has trended downward from 70 µg/L in December 2010 to 5.6 µg/L in June 2018. See Figure 2. The TCE values have generally been below the MCL (5 µg/L) since December 2012, but slightly exceeded the MCL in October 2014, June 2016 and December 2017.

MW-5 - The PCE MCL has been exceeded since monitoring began in 1995 and has trended downward from 210 µg/L in December 2003 to the 100s in the 2000s and has been less than 100 µg/L since June 2013 and was found at 71 µg/L in June 2018, see Figure 3. TCE, TCA and DCE MCLs were last exceeded in the 2002 – 2005 time frame.

MW-5D – TCE values increased rapidly from 1995 to June 2003 (0 to 63 µg/L) and has generally trended downward since then with the ten of the eleven latest readings ranging from 13 to 19 µg/L, see Figure 4. PCE has been below the MCL of 5 µg/L since December 2005.

MW-6 - Has only exceeded the PCE MCL and has been slightly below the MCL of 5 µg/L since June 2013, was right at the MCL in December 2017 and was again below the MCL at 3.8 µg/L in June 2018, see Figure 5.

MW-7- Regularly exceeds the MCL for PCE and has been trending lower since it reached 200 µg/L in December 2006 (the June 2018 result was 36 µg/L), see Figure 6. PCE has been less than 100 µg/L since October 2008. The DCE MCL was exceeded in March and December 2009, but other than those two isolated occurrences, has been found at levels below the MCL since December 2003. The TCE MCL was last exceeded in December 2012.

MW-8 - Has regularly exceeded the PCE and TCE MCLs since testing began in 1995, see Figure 7. PCE has come down from 200 µg/L in 2008 to a range of 56 to 73 µg/L since December 2011. TCE levels have come down from a high of 34 µg/L in June 1995 to the June 2015 value of 6.7 µg/L. It was found at 9.5 µg/l in June 2018. TCE has been found at 10 µg/L or less in the last four semiannual samples.

MW-9 - Has not exceeded any MCL since April 2002 when it exceeded the PCE MCL with a value of 12 µg/L, see Figure 8. There have only been six detections since then.

MW-HBR – This monitoring well only exceeds the MCL for PCE which it has done since monitoring began in 1995. However, it has generally trended downward from a high of 130 µg/L in 2003 to the current value of 47 µg/L indicating a relatively stable value since June 2013, see Figure 9. The duplicate sample was collected here and matched the values found in this sample.

DGW-1 is a three well nest – shallow (S), Intermediate (I) and Deep (D).

No MCLs have been exceeded in **DGW-1S** except TCE at slightly above the MCL at 5.6 µg/L in June 2016, see Figure 10.

DGW-1I has exceeded MCLs for DCE, TCE, PCE, TCA and 1,2-Dichloroethane (DCA), see Figure 11. The PCE MCL has not been exceeded since 2002. The DCA MCL has not been exceeded since 2005. The TCA has been above the MCL 22 of the past 24 samples. DCE and TCE were found in June 2018 at 30 and 67 µg/L, respectively.

DGW-1D has exceeded MCLs for DCA, DCE, TCE and Vinyl Chloride (VC), see Figure 12. The Vinyl Chloride (VC) MCL had been exceeded in six of the last eleven sampling events, but not in the last two sampling events. It was at 0.56 µg/L in June 2018. MCLs for 1,2-DCA have not been exceeded since June 2007 except for a slight exceedance (6 µg/L vs the MCL of 5 µg/L) in December 2012. TCE has been below the MCL since December 2015. 1,1-DCE has generally trended lower since the high of 98.4 µg/L was recorded in December 2005 and was below the MCL of 7 µg/L in the past two sampling events.

DGW-2 is also a three well nest (shallow, intermediate and deep) that have been sampled since 2012. There have been no detections in these three wells; however, 1,1,1-TCA (at 1.2 µg/L) and TCE (at 0.5 µg/L), both below their respective MCLs of 200 and 5 µg/L, were detected in DGW-2D in June 2016, the first detections. Since there had previously been no detections in all three of these wells, DGW-2D was immediately resampled on 7/21/2016 and there were no detections.

Five residential wells and one irrigation wells (South Branch Nursery) were sampled in the June 2018 semiannual RCRA sampling event. There were no detections of any VOCs by EPA Method 8260C, including all the chemicals of concern at Central Wire. The analytical results are provided in Attachment 2.

Summary of June 2018 RCRA Monitoring Well Data, µg/L

Well	TCE	PCE	TCA	DCE	VC
EPA MCL	5	5	200	7	2
MW-2	0.1	0.62	0	0	0
MW-4	1.5	**5.6**	2.3	0	0
MW-5	1.2	**71**	13	0.2 J	0
MW-5D	**11**	0.61 J	4.4	0	0
MW-6	0.12 J	3.8	0.33 J	0	0
MW-7	1.9	**36**	6.4	0	0
MW-8	**9.5**	**56**	0.83 J	0	0
MW-9	0	0.41 J	0	0	0
MW-HBR	0.66 J	**47**	5.1	0	0
DGW-1S	0.85 J	0	6	0.25 J	0
DGW-1I	**67**	0	**260**	**30**	0
DGW-1D	1.4	0	2.1	2.2	0.56 J
DGW-2S	0	0	0	0	0
DGW-2I	0	0	0	0	0
DGW-2D	0	0	0	0	0

J = Result is < the Reporting Limit but >/= to the Method Detection Limit and the concentration is an approximate value.

2 Summary of Validated Data and Results

Pump & Treat System Monthly NPDES Samples

The permit limitations and analytical results are shown in Table 7, below. There were no effluent limitation exceedances.

Table 7
Central Wire Union Illinois Pump & Treat Effluent Analytical Results

Parameter	Effluent Limitation (Daily Maximum), µg/L	Effluent Analytical Results, µg/L
1,1,1-Trichloroethane	20	2.9
Tetrachloroethene	20	0.78 J
Trichloroethene	20	6.0

J = Result is < the Reporting Limit but >/= to the Method Detection Limit and the concentration is an approximate value.

South Branch Nursery Well Samples

Central Wire collected samples at the South Branch Nursery [well no. 1(irrigation) and well no.2 (restroom)] on June 21, 2018. See Figure1 for location of these wells. There were no detections of volatile organic compounds in either well. These results are in the attached analytical report.

RCRA Monitoring Wells

The analytical data for this event is included in Attachment 2 and discussed above.

This NPDES analytical report also has environmental analytical results for CWI's North and South Seepage Ponds. These ponds are Illinois EPA-regulated seepage ponds for CWI's rinse waters from the annealing process, non-contact cooling water, boiler blowdown and for storm water collection.

3 **Upcoming Events/Activities Planned** – CWI will continue to operate the existing remediation systems. Effluent samples will be collected, analyzed and reported as required in our NPDES permit.

CWI has reapplied for the NPDES permit for this system adding a second discharge for the pump and discharge system and awaits permit issuance by IEPA. The current permit expired on May 31, 2018. IEPA has verbally informed CWI that they could continue to operate their pump and treat system under the expired permit until the new permit is issued. The new permit has been public noticed and there have been requests for a public hearing. IEPA is currently making the determination on holding a public hearing.

CWI has submitted a water well permit applications to the McHenry County Health Department for the replacement irrigation well for South Branch Nursery and the pump and discharge well and is responding to comments at this time.

CWI plans to meet as needed with Goodmark Nurseries work out details and schedules and met with them on June 18, 2018 to identify the desired location and receive approval from Goodmark Nurseries. That approval was obtained.

Samples will continue to be collected at the South Branch Nursery wells [well no. 1(irrigation) and well no.2 (restroom)] every month when the irrigation pumps are operating, usually between May and November of each year.

As mentioned in Section 1 of this report, CWI is working with another well driller on alternative methods to increase flow in extraction wells EW-1 and EW-2.

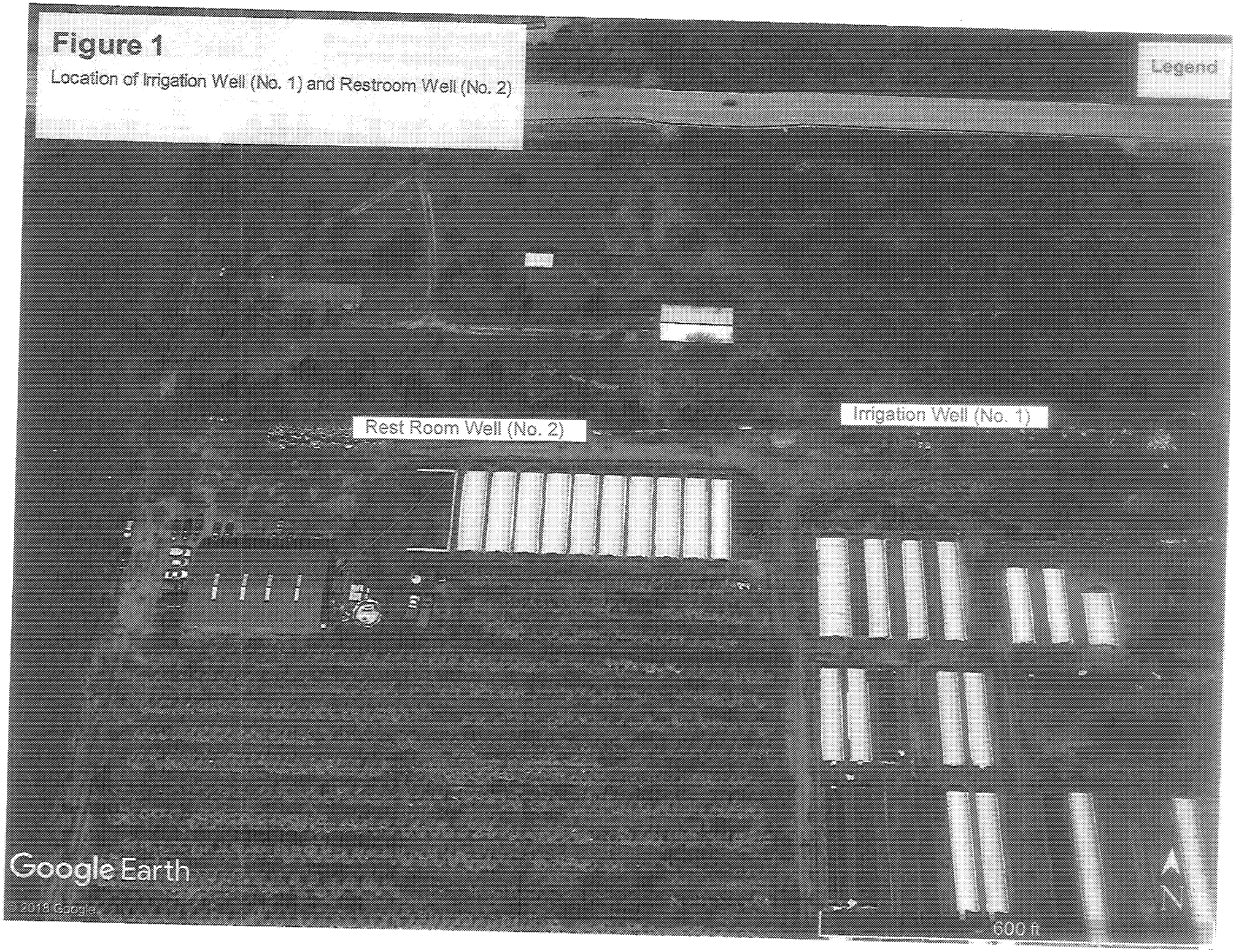
4 **Anticipated Problem Areas and Recommended Solutions** – None.

5 **Key Personnel Changes** – None.

6 **Target and Actual Completion Dates** – This project has not deviated from the project schedule.

Figure 1

Location of Irrigation Well (No. 1) and Restroom Well (No. 2)



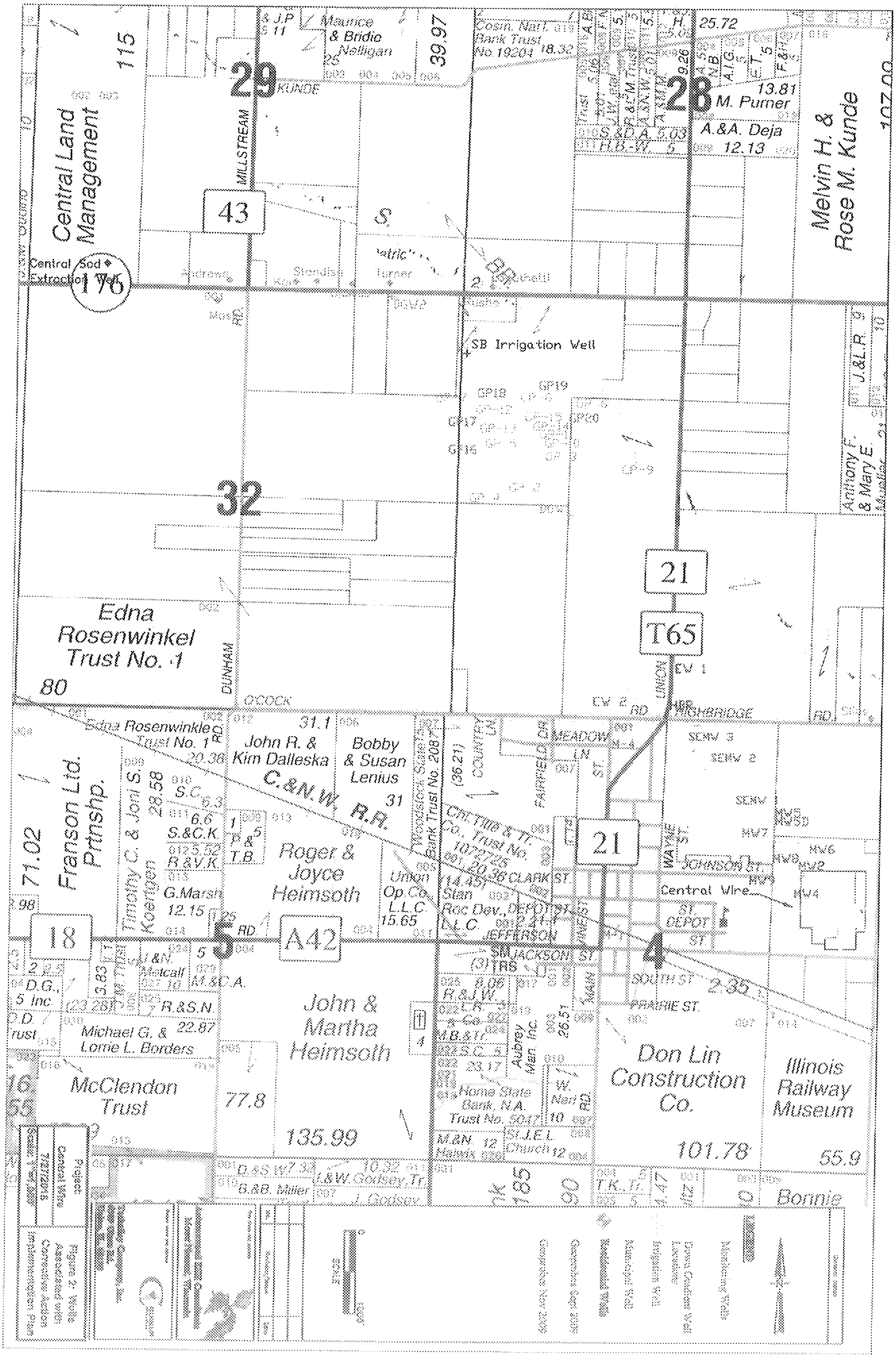


Table 1
Central Wire Union IL
Pump and Treat Average Daily Flow in Gallons per Day (GPD)
January 2015 through June 2018

Date	Average GPD	Comments
Jan-15	481,000	
Feb-15	468,000	
Mar-15	465,000	
Apr-15	435,000	
May-15	756,000	Pump & Treat Well & Pipe Repairs
Jun-15	758,000	
Jul-15	698,000	
Aug-15	708,000	
Sep-15	679,000	
Oct-15	652,000	
Nov-15	631,000	
Dec-15	632,000	
Jan-16	627,000	
Feb-16	636,000	
Mar-16	637,000	
Apr-16	641,000	
May-16	632,000	
Jun-16	621,000	
Jul-16	609,000	
Aug-16	614,000	
Sep-16	526,000	EW-2 Well Maintenance (Air Bursting)
Oct-16	631,000	
Nov-16	619,000	
Dec-16	605,000	
Jan-17	598,000	
Feb-17	566,000	
Mar-17	572,000	
Apr-17	560,000	
May-17	542,000	
Jun-17	528,000	
Jul-17	512,000	
Aug-17	501,000	
Sept-17	381,000	25 days of operation, 5 days of maintenance
Oct-17	520,000	
Nov-17	524,000	
Dec-17	498,000	
Jan-18	465,000	
Feb-18	435,000	
Mar-18	404,000	
Apr-18	373,000	
May-18	336,000	
Jun-18	307,000	
Avg	556,738	

Source: Monthly DMRs.

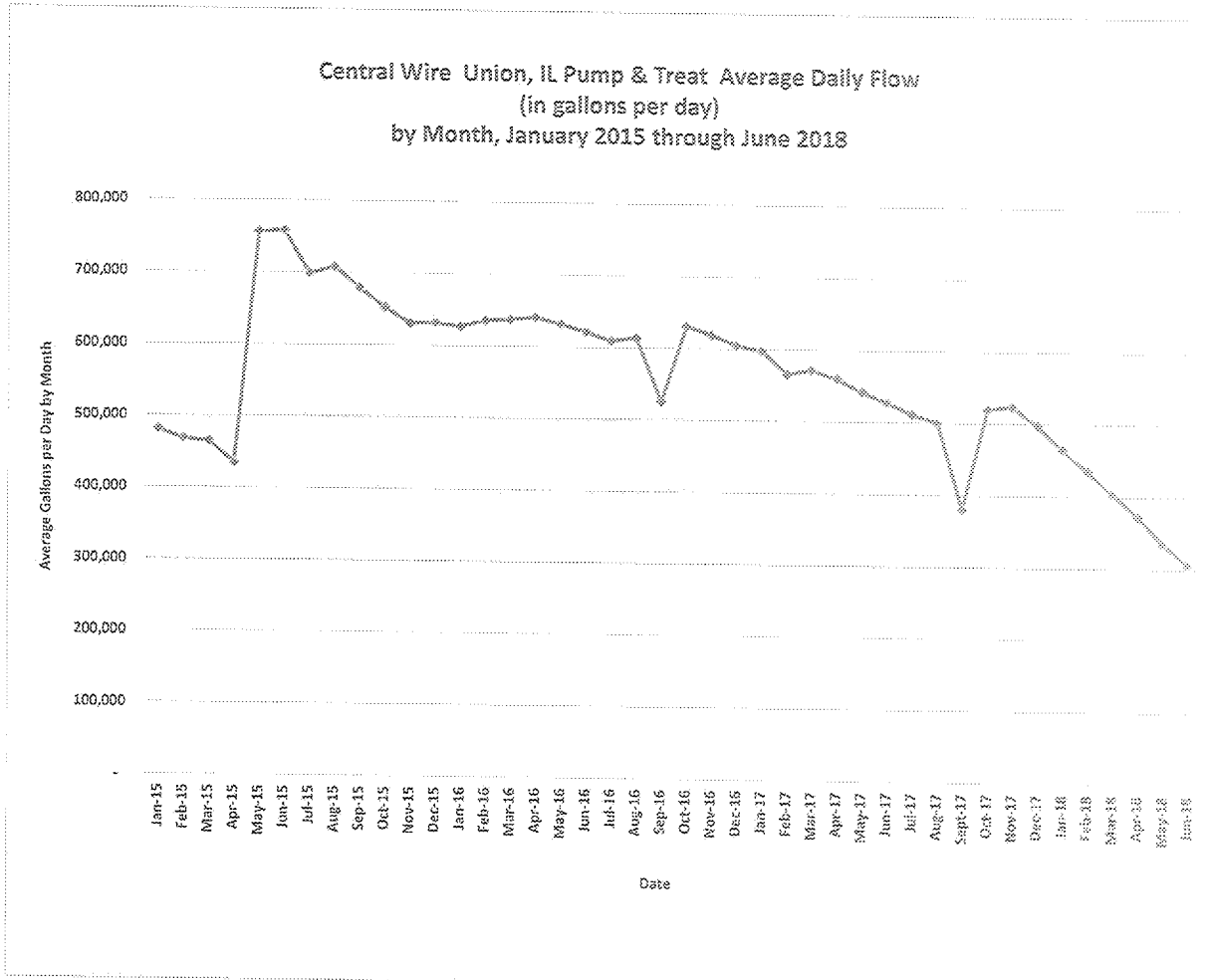


Table 2

Central Wire Union, IL

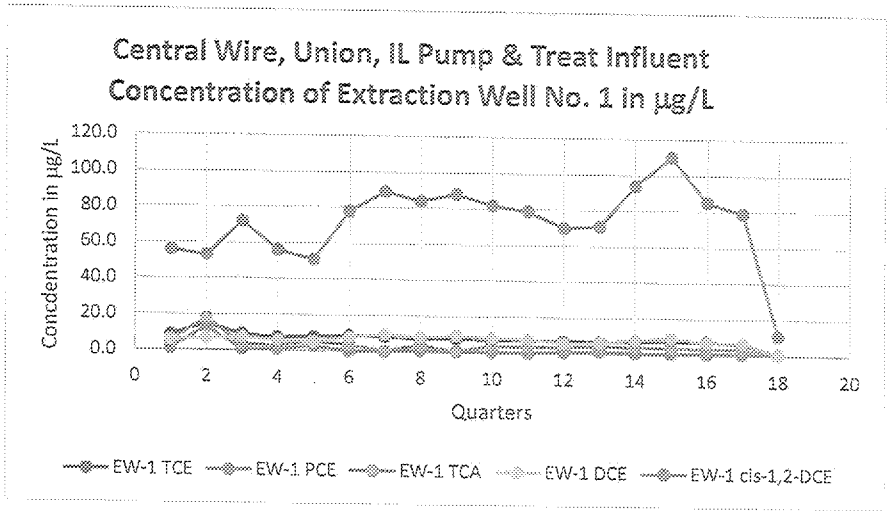
Pump & Treat Extraction Well Influent VOC Concentrations by Quarter & Estimated Influent Concentrations (in µg/L)

Quarter	EW-1					EW-2				Estimated Blended Influent P&T Concentration				
	TCE	PCE	TCA	DCE	cis-1,2-DCE	TCE	PCE	TCA	DCE	TCE	PCE	TCA	DCE	cis-1,2-DCE
1-2014	8.6	1.0	5	6.1	56	16	13	30	5.4	11.1	5.0	13.3	5.9	37.3
2-2014	15.0	13.0	18	6.7	53	23	38	46	2.7	17.7	21.3	27.3	5.4	35.3
3-2014	9.1	0.8	3.6	7.5	72	18	32	38	2.6	12.1	11.2	15.1	5.9	48.0
4-2014	7.5	0.7	3.0	5.9	56	20	33	54	3.1	11.7	11.5	20.0	5.0	37.3
1-2015	7.9	2.8	5.2	5.0	51	6.8	0	2.9	4.9	7.5	1.9	4.4	5.0	34.0
2-2015	8.5	0.2	3.6	7.9	78	18	36	32	3.3	11.7	12.1	13.1	6.4	52.0
3-2015	8.5	0.2	0.2	9.4	89	15	30	23	1.9	10.7	10.1	7.8	6.9	59.3
4-2015	7.5	1	3.8	8.4	84	14	31	28	2.1	9.7	10.8	11.9	6.3	56.0
1-2016	7.7	0.4	0.4	9.3	88	12	27	19	0.4	9.1	9.2	6.6	6.3	58.7
2-2016	7.2	0.4	3.7	8.2	82	10	22	16	1.6	8.1	7.6	7.8	6.0	54.7
3-2016	7.5	0.2	3.5	7.8	79	12	29	19	1.8	9.0	9.8	8.7	5.8	52.7
4-2016	6.7	0.7	3.4	6.0	70	15	32	32	1.9	9.5	11.1	12.9	4.6	46.7
1-2017	6.7	1.5	4.4	6.4	71	14	32	31	1.9	9.1	11.7	13.3	4.9	47.3
2-2017	7.3	0.8	4.1	8.0	94	13	29	26	1.5	9.2	10.2	11.4	5.8	62.7
3-2017	7.8	0.55	3.7	9.3	110	8.1	1.7	4.3	9.1	7.9	0.9	3.9	9.2	73.3
4-2017	7.4	0.7	3.6	7.2	85	10	29	16	0.6	8.3	10.1	7.7	5.0	56.7
1-2018	6.5	0.7	3.4	7.0	79	8.5	26	15	1.4	7.2	9.1	7.3	5.1	52.7
2-2018	0.8	0.9	0.4	0.4	11	8.4	28	17	0.7	3.4	9.9	5.9	0.5	7.3
3-2018														
4-2018														
EPA MCL	5	5	200	7	70	5	5	200	7	5	5	200	7	70

J = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

Note: cis-1,2 - DCE not shown for EW-2 (all concentrations were under the MCL of 70 ug/L).

Table 2 Graphs



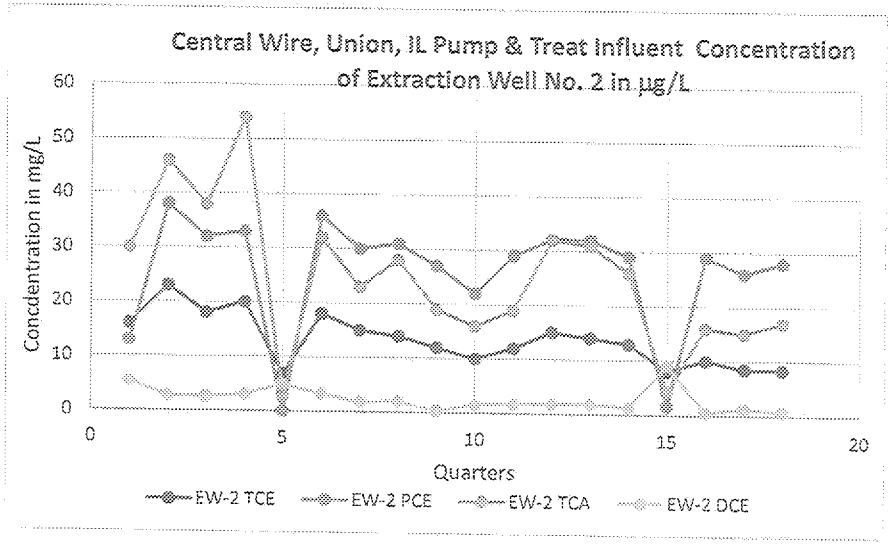


Table 5
Residential Wells Routinely Sampled as a Part of the Central Wire Union, IL RCRA CMI
Semiannual Groundwater Monitoring Well and Residential Well Sampling

Owner	Address
Helfvogt	18516 Route 176
Standish	18408 Route 176
Slais	17214 Highbridge Rd.
Logothetti	18516 Route 176
Sickles	18314 Route 176
Standish (now Ruzga)	18216 Route 176
South Branch Nursery	18101 Route 176
Rusho	18017 Route 176

Table 6 Central Wire June 2018 Groundwater Stabilization Data

Well	pH	Temp.	Cond	D.O. mg/L	Time		Water Level	Well depth
MW-4	7.36	69.7	159	7.97	7:30		3.75	11.19
6-19-18	6.72	67.9	152	7.37	7:33			
	6.68	67.8	153	7.16	7:36			
	5.91	66.3	167	5.72	7:39			
	5.91	66.2	167	5.72	7:41			
Sampled	5.9	66.1	168	5.68	7:43			
MW-6	7.41	54.9	461	5.36	8:09		5.41	26.89
6-19-18	5.84	52.9	458	1.16	8:12			
	6.01	53	459	0.69	8:15			
	6.29	53.1	459	0.69	8:18			
	6.3	52.9	457	0.71	8:21			
Sampled	6.32	52.9	457	0.72	8:24			
MW-5	7.3	54.4	623	6.36	8:42		8.32	38.35
6-19-18	7.15	54.4	623	6.22	8:45			
	7.12	52.3	459	6.29	8:48			
	7.1	55.1	461	6.36	8:51			
	7.1	55	626	6.35	8:54			
Sampled	7.11	55	624	6.35	8:57			
MW-5D	7.62	56.3	512	10.3	9:23		6.1	86.3
6-19-18	7.67	55.5	504	10.51	9:27			
	7.62	55.3	502	10.3	9:30			
	7.61	55.3	502	10.3	9:33			
	7.6	55.4	502	10.2	9:36			
Sampled	7.61	55.5	503	10.1	9:39			
MW-7	7.49	56.6	813	6.27	9:54		6.33	26.95
6-19-18	7.24	55.4	827	1.77	9:57			
	7.04	54.9	831	0.9	10:00			
	6.96	55	832	0.81	10:03			
	7.01	55	831	0.9	10:06			
	7.02	55.1	833	0.91	10:09			
Sampled	7.02	55.2	834	0.92	10:12			
MW-8	7.65	58.2	635	1.61	10:44		5.54	27.18
6-19-18	7.54	58	632	1.43	10:47			
	7.46	56.9	614	0.65	10:50			
	7.46	56.7	609	0.53	10:53			
	7.45	56.7	609	0.52	10:56			
Sampled	7.46	56.7	609	0.51	10:59			
MW-9	7.69	59.9	485	12.1	11:15		5.68	27.19

Table 6 Central Wire June 2018 Groundwater Stabilization Data

Well	pH	Temp.	Cond	D.O. mg/L	Time		Water Level	Well depth
6-19-18	7.52	56.1	485	1.33	11:18			
	7.45	55.6	490	0.66	11:21			
	7.45	55.2	488	0.42	11:24			
	7.44	55.1	488	0.38	11:27			
Sampled	7.44	55.1	489	0.4	11:30			
MW-2	8.19	62.1	427	15.3	12:38		5.69	14.6
6-19-18	7.95	55.2	825	3.79	12:41			
	7.75	53	789	1.13	12:44			
	7.7	52.9	770	0.83	12:47			
	7.67	52.7	768	0.81	12:50			
Sampled	7.68	52.7	766	0.8	12:53			
HBR	7.91	62.1	274	11.5	11:47		8.43	27.53
6-19-18	7.66	57	428	13.5	11:50			
	7.53	55.4	410	13.2	11:53			
	7.51	55.5	410	13.1	11:56			
	7.48	55.3	407	12.9	11:59			
Sampled	7.47	55.3	406	12.8	12:02		Collected dupe at 12:15.	
DGW-1D	7.6	57.9	805	8.38	14:19		10.64	82.35
6-19-18	7.45	56.4	785	6.72	14:22			
	6.95	56	772	6.99	14:25			
	6.99	56.2	772	7.04	14:28			
	7	56.2	774	7.7	14:31			
Sampled	7.01	56.2	774	7.69	14:34			
DGW-1I	7.38	59.6	682	2.77	14:42		10.73	57.6
6-19-18	7.35	58.7	673	1.86	14:45			
	7.28	58	670	1.52	14:48			
	7.25	58.2	671	1.43	14:51			
	7.23	58.3	673	1.4	14:54			
Sampled	7.23	58.3	673	1.38	14:57			
DGW-1S	7.46	58.5	488	9.56	15:10		10.59	27.45
6-19-18	7.38	56.8	470	11.4	15:13			
	7.25	55.9	453	11.8	15:16			
	7.21	55.7	451	11.8	15:19			
Sampled	7.2	55.7	450	11.9	15:22			
DGW-2S	7.71	54.1	381	13.3	8:15		3.94	26.82
6-20-18	7.01	52.8	414	11.8	8:18			

Table 6 Central Wire June 2018 Groundwater Stabilization Data

Well	pH	Temp.	Cond	D.O. mg/L	Time		Water Level	Well depth
	6.91	52.6	418	11.3	8:21			
	7.01	52.5	419	11.1	8:24			
	7.01	52.5	420	11	8:27			
Sampled	7	52.5	419	11.1	8:30			
DGW-2I	7.21	55.4	536	6.6	8:40		4.15	56.82
6-20-18	7.33	54.8	537	4.01	8:43			
	7.35	54.7	539	3.48	8:46			
	7.36	54.9	540	3.39	8:49			
Sampled	7.36	54.9	540	3.38	8:52			
DGW-2D	7.71	55.8	292	23.2	7:48		3.44	84.85
6-20-18	7.16	54.8	285	17.5	7:51			
	6.4	53.7	273	14.5	7:54			
	6.53	53.7	270	14.2	7:57			
	6.54	53.5	269	14.2	8:00			
Sampled	6.55	53.4	269	14.2	8:03			
17214 Highbridge	7.73	64.5	583	9.23	9:22			
6-20-18	7.58	60.1	544	10.3	9:25			
	7.47	60.1	538	11	9:28			
	7.45	59.9	535	10.9	9:31			
Sampled	7.44	59.8	533	10.89	9:33	Collected MS/MSD		

18010 Rt. 176 The water is off. The house is for sale. The home does not appear to be occupied.
6-20-18

18017 Rt. 176	7.28	58.6	655	0.74	9:55
6-20-18	7.14	55.4	623	0.63	9:58
	7	55.3	625	0.57	10:01
	6.98	55.4	627	0.55	10:04
	6.99	55.4	628	0.54	10:07
Sampled	7	55.4	629	0.53	10:10
South Branch (a)	7.48	57.6	685	9.14	10:25
6-20-18					

(a) There was no way to purge the well without flooding the inside of the well building.

18216 Rt. 176	7.46	53.4	411	9.87	10:36
6-20-18	7.09	51.6	405	9.48	10:39
	6.88	51.5	406	9.5	10:42

Table 6 Central Wire June 2018 Groundwater Stabilization Data

Well	pH	Temp.	Cond	D.O. mg/L	Time		Water Level	Well depth
	7.03	51.6	406	9.47	10:45			
	7.05	51.5	407	9.45	10:48			
Sampled (b)	7.06	51.5	407	9.45	10:51			

(b) Sampled through a garden hose due to concern of damaging spigot removing the owners hose.

18314 Rt. 176	7.65	61.4	509	10.6	11:25
6-20-18	7.45	56.2	482	7.63	11:28
	7.39	53.9	447	9.62	11:31
	7.33	52.8	434	8.98	11:34
	7.32	52.9	434	8.94	11:37
Sampled	7.32	553	434	8.92	11:40

18408 Rt. 176	7.68	59	404	9.94	11:52
6-20-18	7.24	57.4	577	0.88	11:55
	7.15	55.9	554	0.77	11:58
	7.19	55.8	559	0.75	12:01
	7.18	55.6	556	0.72	12:04
Sampled	7.17	55.6	554	0.71	12:07

18516 Rt. 176	7.35	64.1	595	1.13	12:20
6-20-18	7.2	53.2	519	0.57	12:23
	7	51.6	509	0.52	12:26
	6.96	51.5	509	0.51	12:29
	6.98	51.5	509	0.5	12:32
Sampled	6.99	51.5	509	0.5	12:35

18603 Rt. 176 The water appears to be off in the house.
6-20-18

DMR Copy of Record

Permit

Permit #:	IL0070408	Permittee:	TECHALLOY COMPANY INC	Facility:	TECHALLOY COMPANY INC
Major:	No	Permittee Address:	6509 OLSON ROAD UNION, IL 60180	Facility Location:	6509 OLSON ROAD CENTRAL WIRE UNION PLANT UNION, IL 60180
Permitted Feature:	001 External Outfall	Discharge:	001-0 TREATED GROUNDWATER		

Report Dates & Status

Monitoring Period:	From 06/01/18 to 06/30/18	DMR Due Date:	07/15/18	Status:	NetDMR Validated

Considerations for Form Completion

BOW ID: W1110900004

Principal Executive Officer

First Name:	Gerry	Title:	Plant Mgr.	Telephone:	815-923-2131
Last Name:	Ruepp				

No Data Indicator (NODI)

Form NODI: --

Parameter Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Quality or Concentration Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
00400	pH	1 - Effluent Gross	0	--	Sample						=	7.7			=	7.7	12 - SU		01/30 - Monthly	GR - GRAB
					Permit Req.						>=	5 MD MIN			<=	9 MD MAX	12 - SU	0	01/30 - Monthly	GR - GRAB
					Value NODI															
34506	1,1,1-Trichloroethane	1 - Effluent Gross	0	--	Sample										=	0.0029	19 - mg/L		01/30 - Monthly	GR - GRAB
					Permit Req.										<=	.02 DAILY MX	19 - mg/L	0	01/30 - Monthly	GR - GRAB
					Value NODI															
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--	Sample	=	0.307	=	0.319	03 - MGD									01/30 - Monthly	MS - MEASRD
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD										
					Value NODI													0	01/30 - Monthly	MS - MEASRD
78395	Tetrachloroethane	1 - Effluent Gross	0	--	Sample										=	0.00078	19 - mg/L		01/30 - Monthly	GR - GRAB
					Permit Req.										<=	.02 DAILY MX	19 - mg/L	0	01/30 - Monthly	GR - GRAB
					Value NODI															
78391	Trichloroethane	1 - Effluent Gross	0	--	Sample										=	0.005	19 - mg/L		01/30 - Monthly	GR - GRAB
					Permit Req.										<=	.02 DAILY MX	19 - mg/L	0	01/30 - Monthly	GR - GRAB
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Results for June are under reporting limits.

Attachments

No attachments.

Report Last Saved By

TECHALLOY COMPANY INC

User:	SKYBOY01
Name:	Robert Johnson
E-Mail:	rjohnson@centralwire.com
Date/Time:	2018-07-10 18:33 (Time Zone: -05:00)

Report Last Signed By

User:	SKYBOY01
Name:	Robert Johnson
E-Mail:	rjohnson@centralwire.com
Date/Time:	2018-07-10 18:33 (Time Zone: -05:00)

ATTACHMENT 1

TABLES AND PLOTS OF RCRA MONITORING WELL DATA

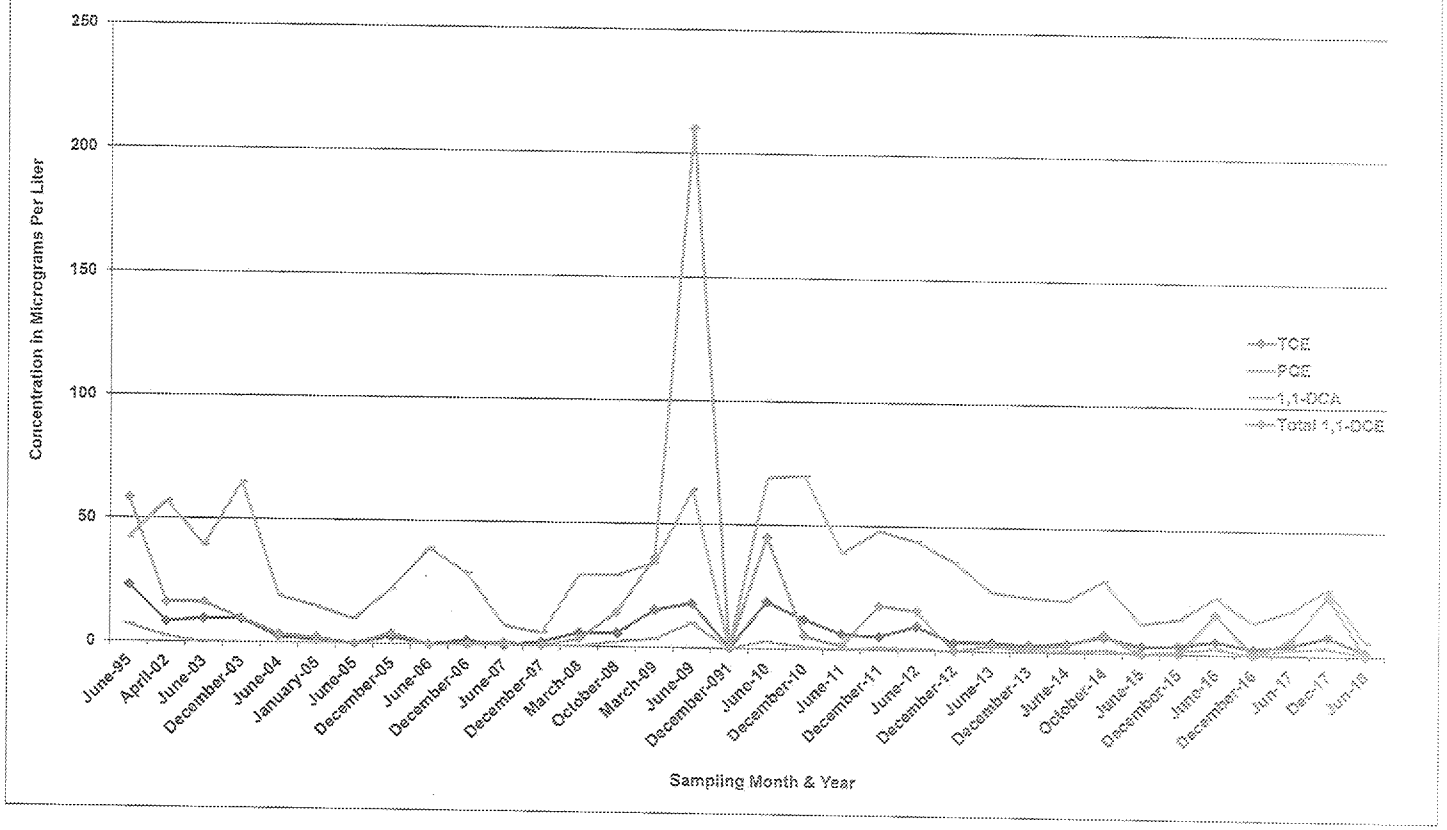
MW-4

Sampling Month & Year	TCE	PCE	1,1-DCA	Total 1,1-DCE
June-95	23	42	7	58
April-02	8.2	57	2.3	16
June-03	9.5	39	0	16
December-03	9.5	65	0	9.8
June-04	2.5	19	0	3.5
January-05	1.4	15	0	2.3
June-05	0	10	0	0
December-05	3.05	22.3	0	4.31
June-06	0	39	0	0
December-06	1.8	29	0	0
June-07	0	7.9	0	1.3
December-07	1.5	5.3	0	0
March-08	5.5	29	0	3
October-08	5.5	29	2.2	14
March-09	15	34	3.4	36
June-09	18	64	9.9	210
December-09[1]	0	0	0	0
June-10	19	69	3	45
December-10	12	70	0.99	5.3
June-11	6.3	39	0	1.5
December-11	5.5	48	1	18
June-12	9.7	44	0.94	16
December-12	3.5	36	0	0
June-13	3.6	24	2.3	2.4
December-13	2.8	22	0.6	1.6
June-14	3.5	21	0.8	2.9
October-14	6.6	29	1.4	7.5
June-15	2.9	12	0	0
December-15	3.3	14	1.2	0
June-16	5.3	23	2.5	16
December-16	2.4	13	0	0
Jun-17	3.9	18	2.5	6
Dec-17	7.6	27	3.1	24
Jun-18	1.5	5.6	0.79	0
MCL	5	5	7	170

[1] Well not found under snow

Concentrations reported in micrograms per liter.
Bold values exceed the MCL.
EPA Method 8260B was run. Only chemicals with detections above the MCLs were plotted.
June-95 data was not plotted due to large value.

Figure 2
Trends in VOC Concentrations for Parameters Exceeding MCLs in Monitoring Well MW-4 at the Central Wire Union, Illinois Plant, 1995 - 2018



MW-5

Sampling Month & Year	TCA	TCE	PCE	DCE
April-02	300	5	94	12
June-03	360	10	190	5
December-03	330	7.5	210	1.8
June--04	150	4.7	170	0
January-05	160	5.1	190	0
June-05	120	4.9	190	0
December-05	93.2	4.63	133	1.64
June-06	78	4.7	120	0
December-06	82	4	160	0
June-07	0	4.5	150	5.7
December-07	0	4.6	130	1.1
March-08	58	3.6	160	0
October--08	45	3.1	110	0
June-09	51	3.5	140	1.8
December-09	31	2.7	140	0
June-10	46	3.5	100	0.98
December-10	37	3.2	130	1.5
June-11	42	2.6	110	0.77
December-11	36	2.5	98	0
June-12	49	4.2	120	0.77
December-12	29	2.6	110	0.94
June-13	29	2.4	86	0
December-13	19	1.8	72	0
June-14	26	2.1	92	0
October-14	24	2.1	81	0
June-15	7.9	0.64	62	0
December-15	10	1	64	0
June-16	21	2.2	9.3	0
December-16	15	1.6	72	0
Jun-17	16	1.5	88	0
Dec-17	7.9	1.5	64	0
Jun-18	13	1.2	71	0.2
MCL	200	5	5	7

Concentrations reported in micrograms per liter.

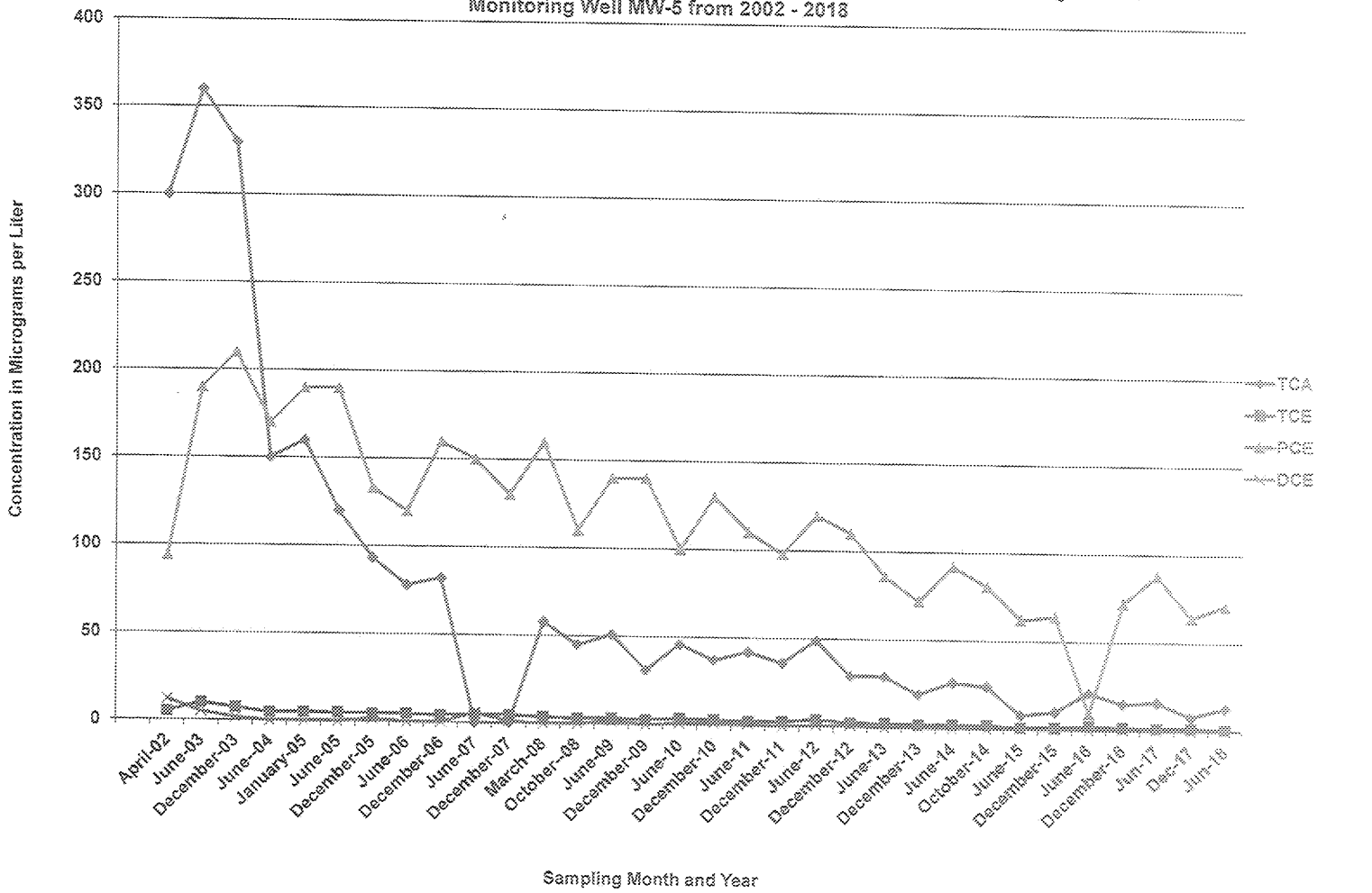
Bold values exceed the MCL.

EPA Method 8260B was run. Only chemicals with detections above the MCLs were plotted.

June-95	4000	150	650	230

Figure 3

Trends in VOC Concentrations at the Central Wire Union, Illinois Plant for Parameters Exceeding the MCLs in Monitoring Well MW-5 from 2002 - 2018

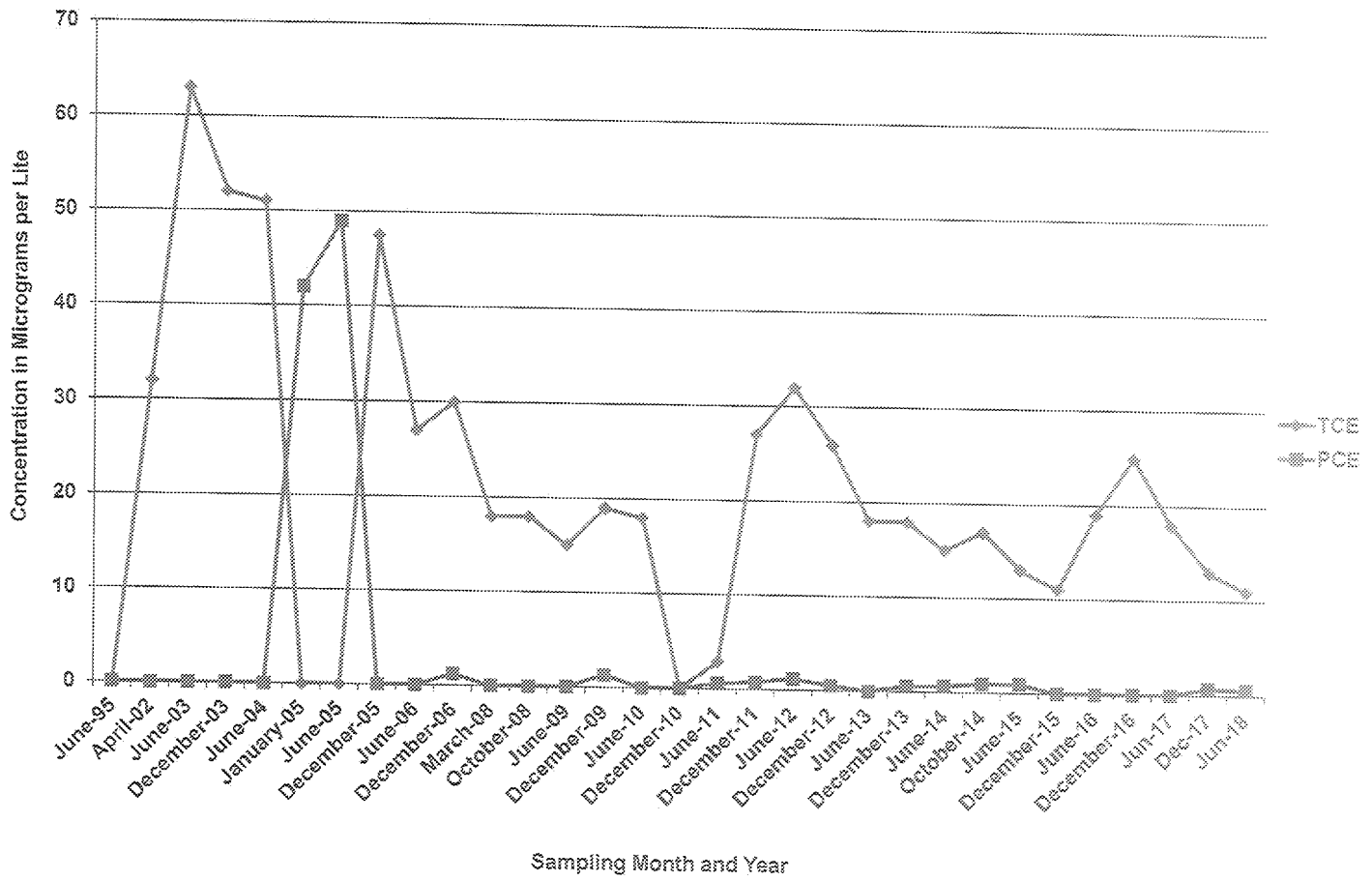


MW-5D

Sampling Month & Year	TCE	PCE
June-95	0	0
April-02	32	0
June-03	63	0
December-03	52	0
June-04	51	0
January-05	0	42
June-05	0	49
December-05	47.5	0
June-06	27	0
December-06	30	1.2
March-08	18	0
October-08	18	0
June-09	15	0
December-09	19	1.3
June-10	18	0
December-10	0	0
June-11	2.8	0.57
December-11	27	0.79
June-12	32	1.2
December-12	26	0.56
June-13	18	0
December-13	18	0.6
June-14	15	0.65
October-14	17	0.95
June-15	13	0.95
December-15	11	0
June-16	19	0
December-16	25	0
Jun-17	18	0
Dec-17	13	0.72
Jun-18	11	0.61
MCL	5	5

Concentrations reported in micrograms per liter.
Bold values exceed the MCL.
EPA Method 8260B was run. Only chemicals with detections above the MCLs were plotted.

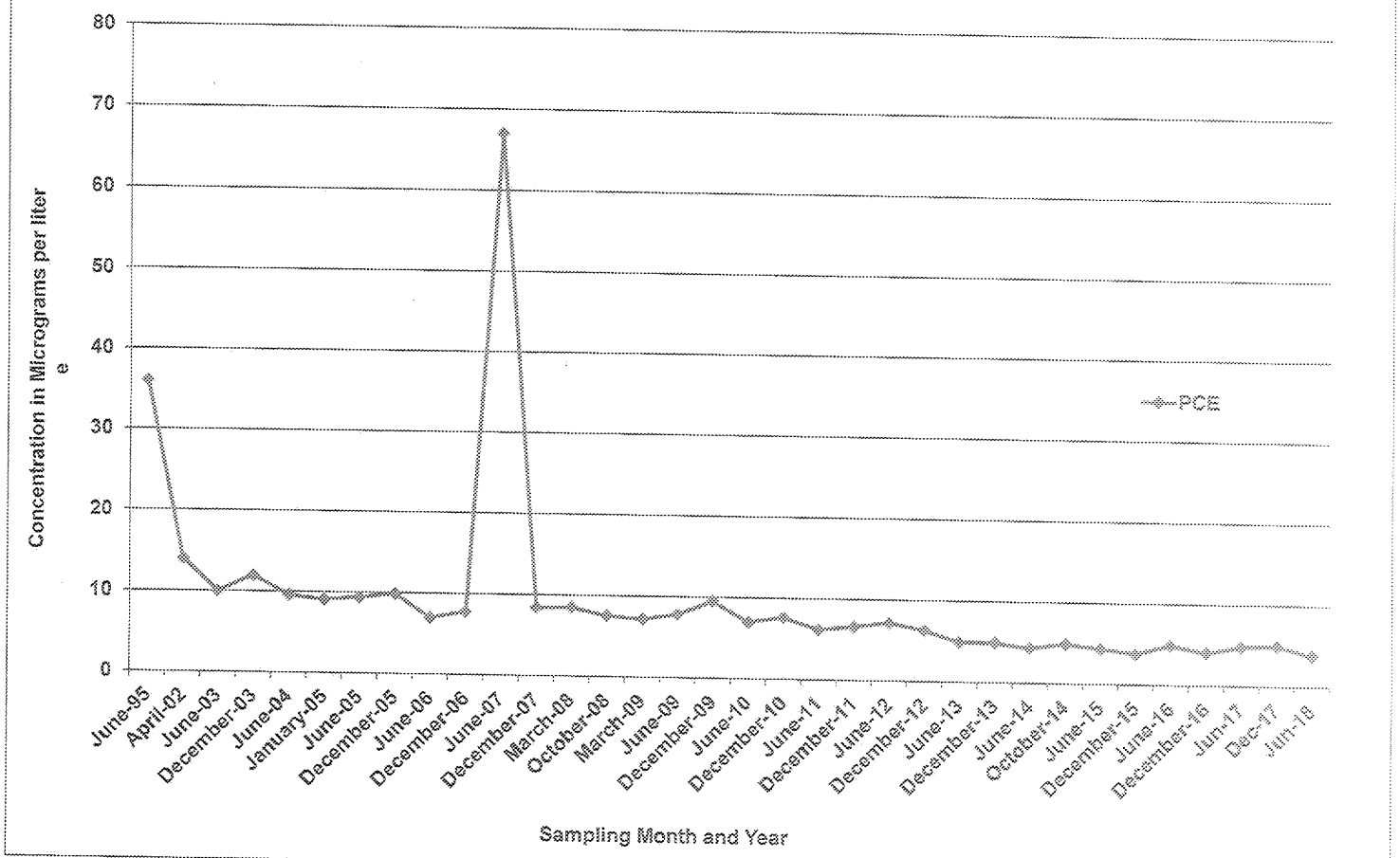
Figure 4
Trends in VOC Concentrations at the Central Wire Union, Illinois Plant for Parameters Exceeding the MCLs in Monitoring Well MW-5D from 1995 - 2018



MW-6	
Sampling Month & Year	PCE
June-95	36
April-02	14
June-03	10
December-03	12
June-04	9.6
January-05	9.1
June-05	9.4
December-05	9.91
June-06	7
December-06	7.8
June-07	67
December-07	8.4
March-08	8.5
October-08	7.54
March-09	7.2
June-09	7.8
December-09	9.5
June-10	7
December-10	7.6
June-11	6.2
December-11	6.6
June-12	7.2
December-12	6.3
June-13	4.9
December-13	4.9
June-14	4.3
October-14	4.9
June-15	4.4
December-15	3.8
June-16	4.9
December-16	4
Jun-17	4.8
Dec-17	5
Jun-18	3.8
MCL	5

Concentrations reported in micrograms per liter.
Bold values exceed the MCL.
EPA Method 8260B was run.
Only chemicals with detections above the MCLs were plotted.

Figure 5
Trends in VOC Concentrations at Central Wire Union, Illinois Plant
for Parameters Exceeding the MCLs in Monitoring Well MW-6
from 1995 - 2018

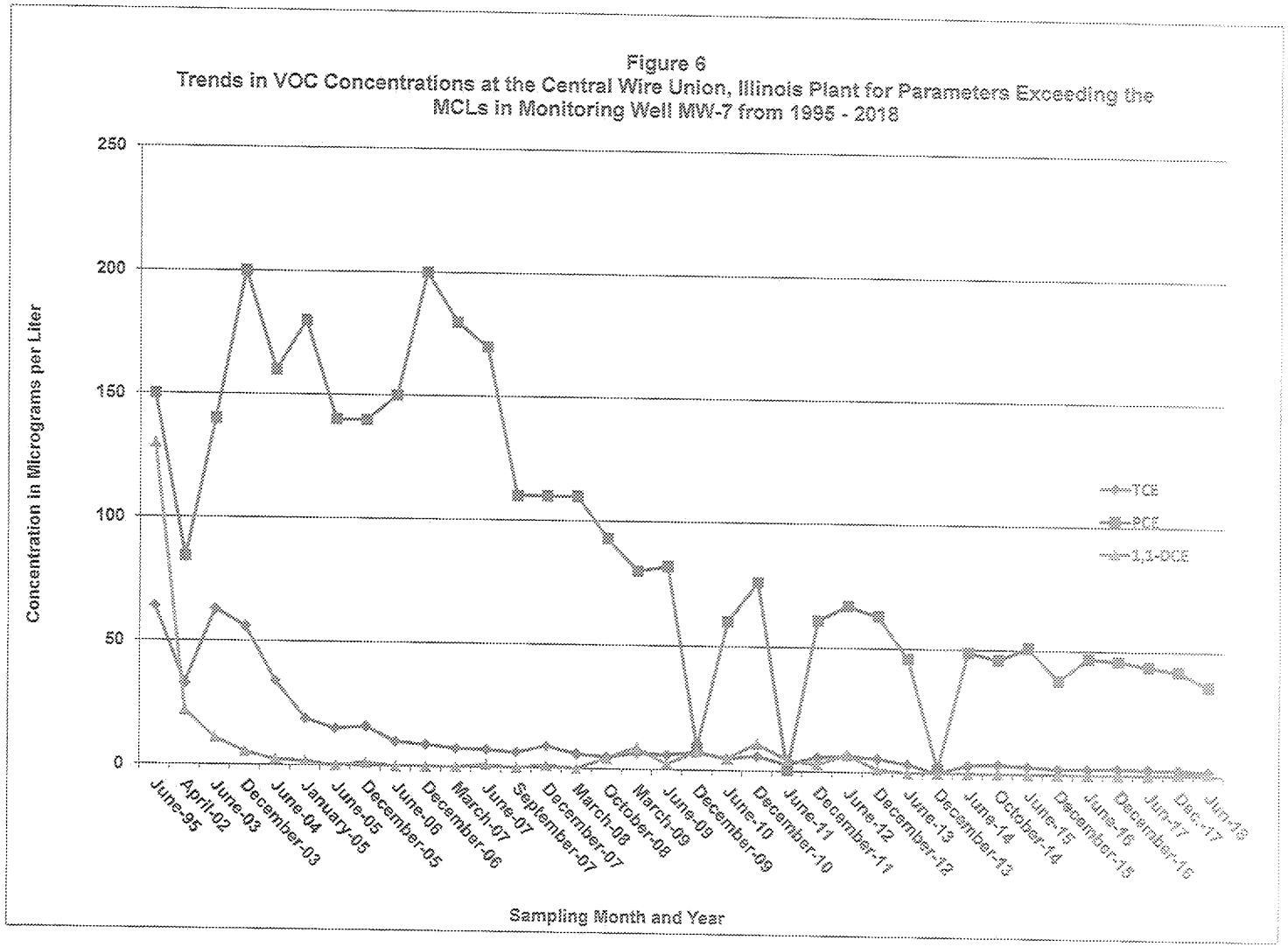


MW-7			
Sampling Month & Year	TCE	PCE	1,1-DCE
June-95	64	150	130
April-02	33	84	22
June-03	63	140	11
December-03	56	200	5.5
June-04	34	160	2.3
January-05	19	180	1.9
June-05	15	140	0
December-05	16	140	1.45
June-06	10	150	0
December-06	9	200	0
March-07	7.5	180	0
June-07	7.2	170	1.1
September-07	6.2	110	0
December-07	8.9	110	1.2
March-08	6	110	0
October-08	4.8	93	4.3
March-09	6.5	80	8.8
June-09	5.9	82	2.4
December-09	7.2	9.4	7.5
June-10	4.8	60	4.8
December-10	5.9	76	11
June-11	2.8	0.57	4.6
December-11	5.7	61	3
June-12	6.5	67	7
December-12	5.6	63	1.4
June-13	3.5	46	0
December-13	0	1.8	0
June-14	3.3	49	0
October-14	3.8	46	0
June-15	3.1	51	0
December-15	2.4	38	0
June-16	2.6	47	0
December-16	2.8	46	0
Jun-17	2.4	44	0
Dec.-17	2.4	42	0.84
Jun-18	1.9	36	1.1

MCL:	5	5	7

Concentrations reported in micrograms per liter.
Bold values exceed the MCL.
EPA Method 8260B was run. Only chemicals with detections above the MCLs were plotted.

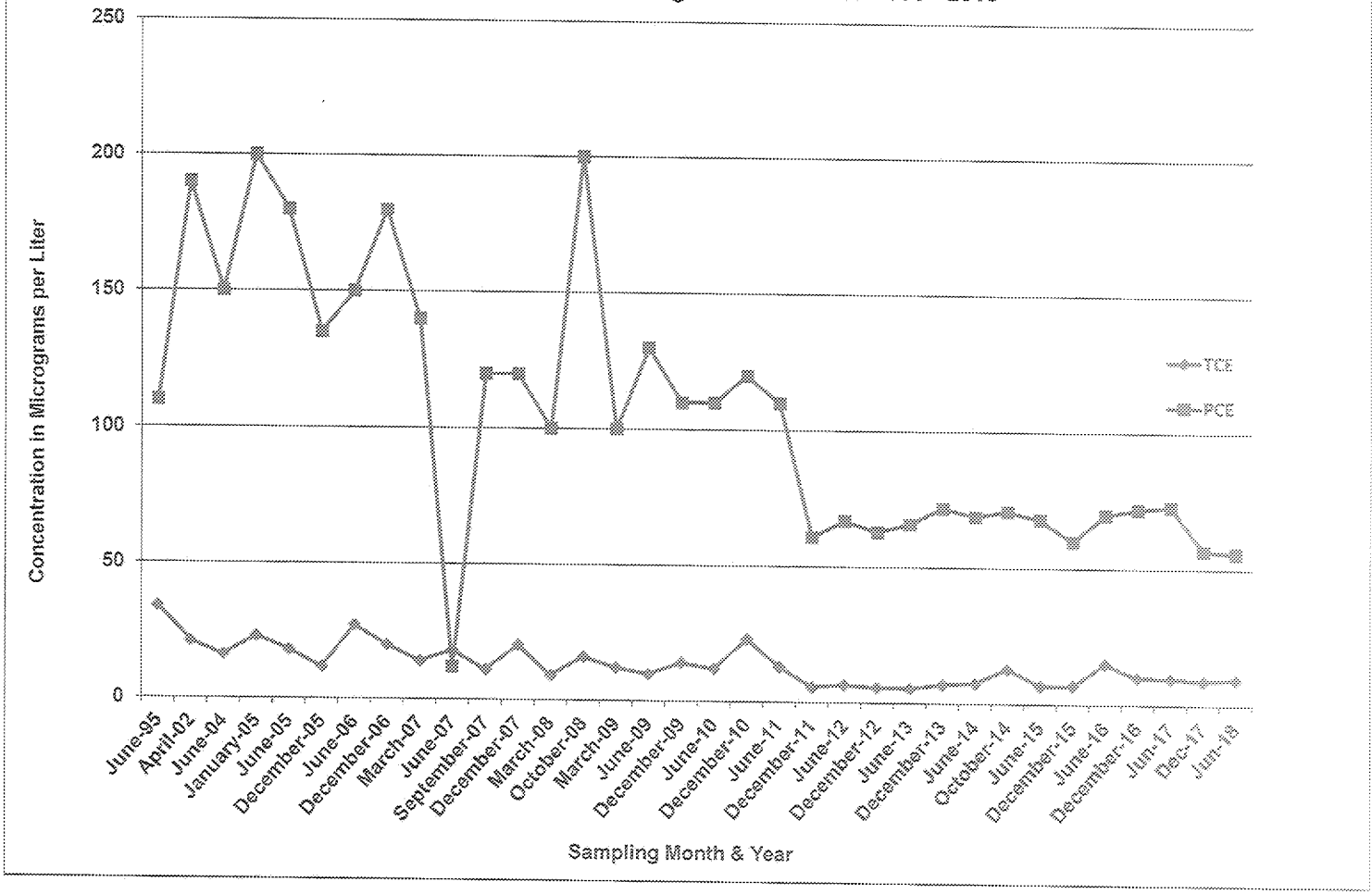
Figure 6
Trends in VOC Concentrations at the Central Wire Union, Illinois Plant for Parameters Exceeding the MCLs in Monitoring Well MW-7 from 1995 - 2018



MW-8		
Sampling Month & Year	TCE	PCE
June-95	34	110
April-02	21	190
June-04	16	150
January-05	23	200
June-05	18	180
December-05	11.6	135
June-06	27	150
December-06	20	180
March-07	14	140
June-07	18	12
September-07	11	120
December-07	20	120
March-08	9.1	100
October-08	16	200
March-09	12	100
June-09	9.9	130
December-09	14	110
June-10	12	110
December-10	23	120
June-11	13	110
December-11	5.7	61
June-12	6.5	67
December-12	5.6	63
June-13	5.5	66
December-13	6.9	72
June-14	7.5	69
October-14	13	71
June-15	6.7	68
December-15	6.8	60
June-16	15	70
December-16	10	72
Jun-17	9.9	73
Dec-17	8.9	57
Jun-18	9.5	56
MCL	5	5

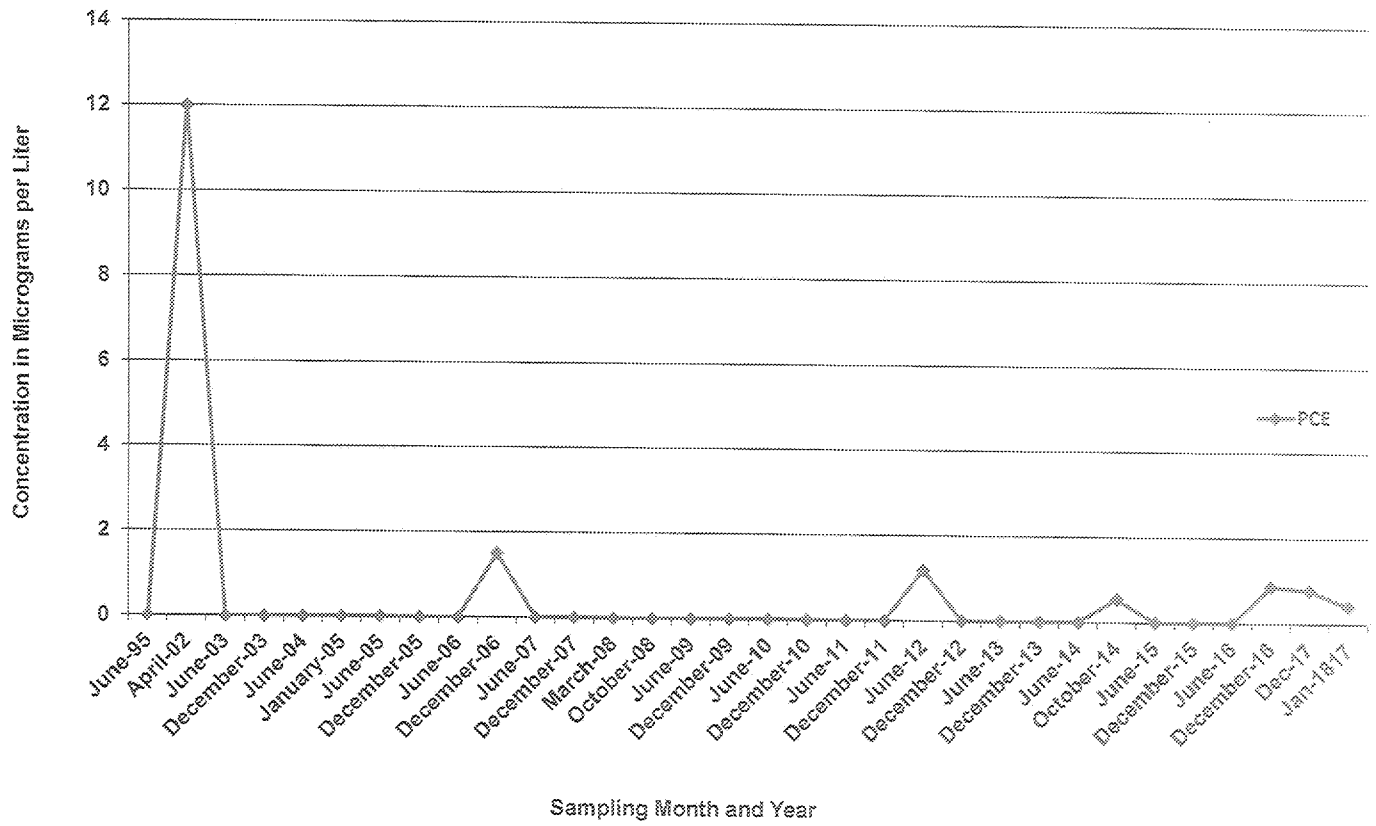
Concentrations reported in micrograms per liter.
Bold values exceed the MCL.
EPA Method 8260B was run. Only chemicals with detections above the MCLs were plotted.

Figure 7
Trends in VOC Concentrations at the Central Wire Union, Illinois Plant for Parameters Exceeding the MCLs in Monitoring Well MW-8 from 1995 - 2018



MW-9	
Sampling Month & Year	PCE
June-95	0
April-02	12
June-03	0
December-03	0
June-04	0
January-05	0
June-05	0
December-05	0
June-06	0
December-06	1.5
June-07	0
December-07	0
March-08	0
October-08	0
June-09	0
December-09	0
June-10	0
December-10	0
June-11	0
December-11	0
June-12	1.2
December-12	0
June-13	0
December-13	0
June-14	0
October-14	0.55
June-15	0
December-15	0
June-16	0
December-16	0.87
Dec-17	0.78
Jan-1817	0.41
MCL	5

Figure 8
Trends in VOC Concentrations at the Central Wire Union, Illinois Plant for Parameters Exceeding the MCLs in Monitoring Well MW-9 from 1995 - 2018

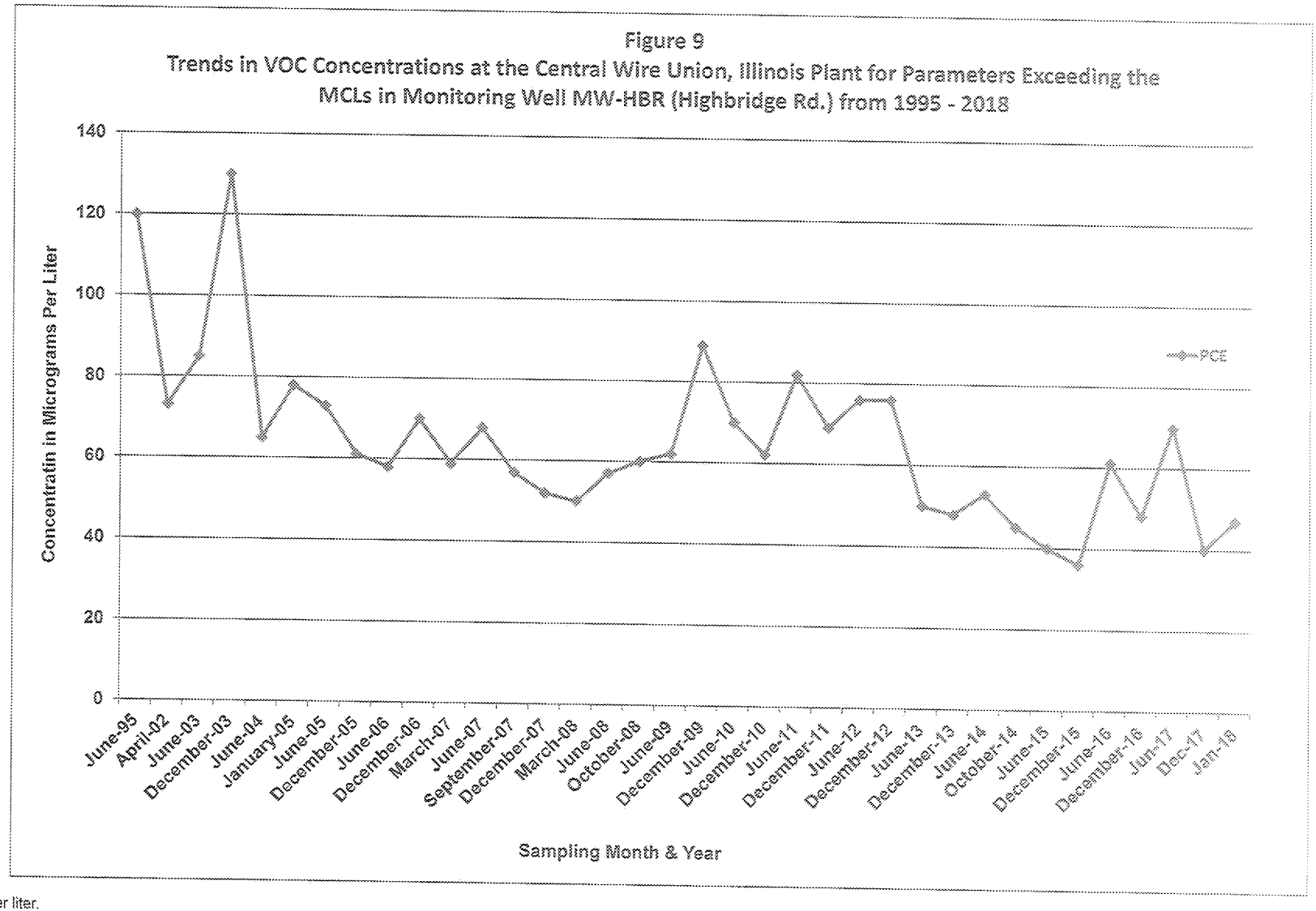


Concentrations reported in micrograms per liter.
Bold values exceed the MCL.
EPA Method 8260B was run. Only chemicals with

MW-HBR	
Sampling Month & Year	PCE
June-95	120
April-02	73
June-03	85
December-03	130
June-04	65
January-05	78
June-05	73
December-05	61.1
June-06	58
December-06	70
March-07	59
June-07	68
September-07	57
December-07	52
March-08	50
June-08	57
October-08	60
June-09	62
December-09	89
June-10	70
December-10	62
June-11	82
December-11	69
June-12	76
December-12	76
June-13	50
December-13	48
June-14	53
October-14	45
June-15	40
December-15	36
June-16	61
December-16	48
Jun-17	70
Dec-17	40
Jan-18	47
MCL	5

Concentrations reported in micrograms per liter.
Bold values exceed the MCL.
EPA Method 8260B was run. Only chemicals with detections above the MCLs were plotted.

Figure 9
Trends in VOC Concentrations at the Central Wire Union, Illinois Plant for Parameters Exceeding the MCLs in Monitoring Well MW-HBR (Highbridge Rd.) from 1995 - 2018



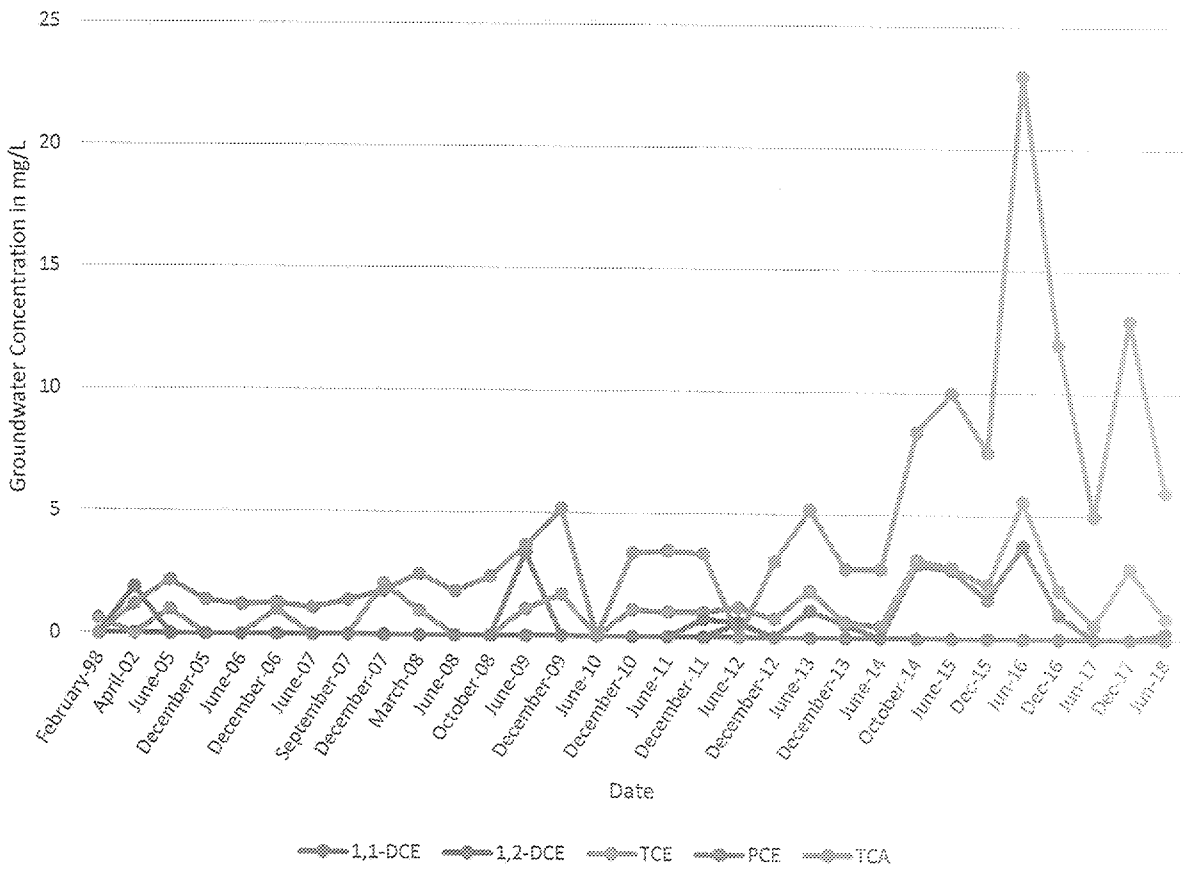
MW-HBR					
DATE	1,1-DCE	1,2-DCE	TCE	PCE	TCA
February-98	0	0	0.6	0	0
April-02	0	0	0	1.9	1.2
June-05	0	0	1	0	2.2
December-05	0	0	0	0	1.39
June-06	0	0	0	0	1.2
December-06	0	0	1	0	1.3
June-07	0	0	0	0	1.1
September-07	0	0	0	0	1.4
December-07	0	0	2.1	0	1.8
March-08	0	0	1	0	2.5
June-08	0	0	0	0	1.8
October-08	0	0	0	0	2.4
June-09	3.4	0	1.1	0	3.7
December-09	0	0	1.7	0	5.2
June-10	0	0	0	0	0
December-10	0	0	1.1	0	3.4
June-11	0	0	1	0	3.5
December-11	0	0	1	0.72	3.4
June-12	0.56	0	1.2	0.6	0
December-12	0	0	0.76	0	3.1
June-13	1.1	0	1.9	0	5.2
December-13	0.55	0	0.64	0	2.8
June-14	0	0	0.48	0	2.8
October-14	3	0	3.2	0	8.4
June-15	2.8	0	2.9	0	10
Dec-15	1.6	0	2.2	0	7.6
Jun-16	3.8	0	**5.6**	0	23
Dec-16	1	0	2	0	12
Jun-17	0	0	0.55	0	5
Dec-17	0	0	2.9	0	13
Jun-18	0.25	0	0.85	0	6
MCL	7	5	5	2	200

Concentrations reported in micrograms per liter.

Bold values exceed the MCL.

EPA Method 8260B was run. Only chemicals with detections above the MCLs were plotted.

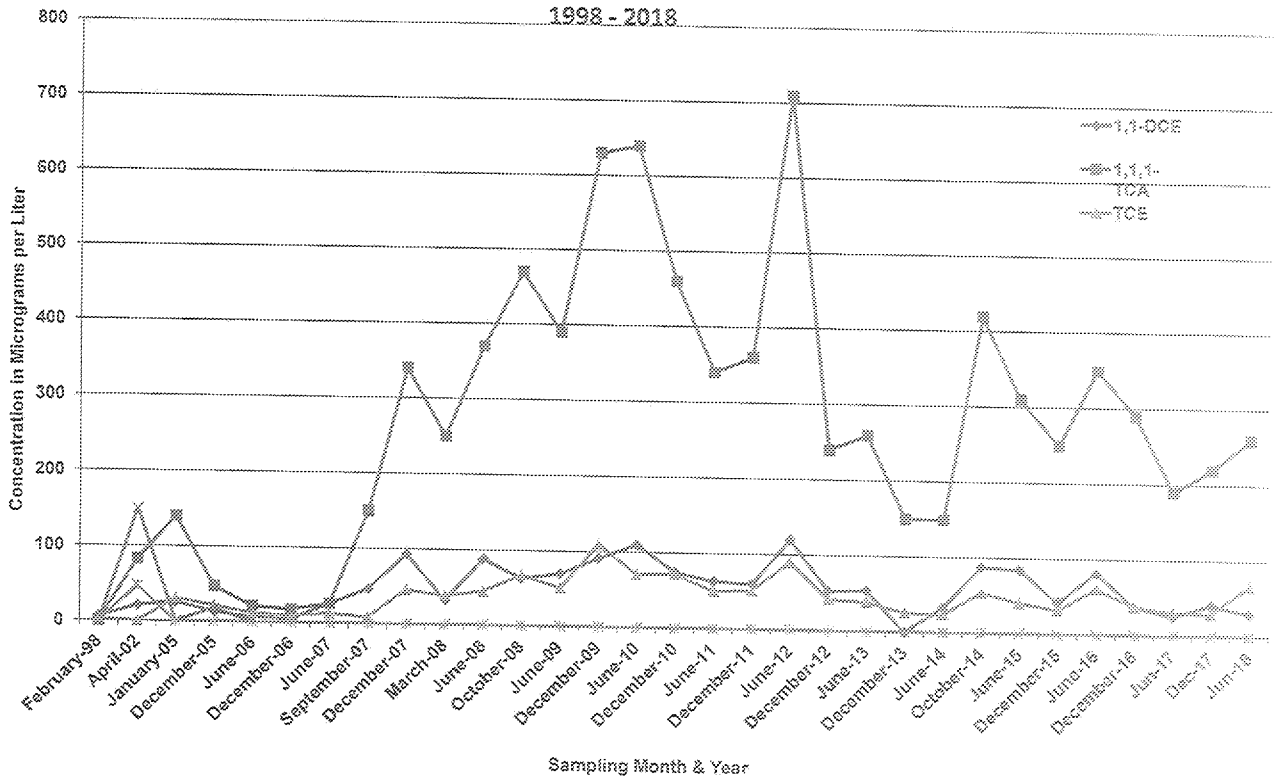
Figure 10
Trends in VOC Concentrations at the Central Wire, Illinois Plant for Parameters Exceeding the MCLs in Monitoring Well DGW-1S - 1998-2018



DGW-1I					
Sampling Month & Year	1,1-DCE	1,1,1-TCA	TCE	1,2-DCA	PCE
February-98	6	0	4	0.6	0
April-02	21	83	9 J	150	47
January-05	26	140	31	0	0
December-05	13.6	47.2	21.6	18.4	0
June-06	6.9	22	12	0	0
December-06	4.6	18	9.7	0	0
June-07	26	26	13	0	0
September-07	46	150	8.9	0	0
December-07	93	340	46	0	0
March-08	33	250	39	0	0
June-08	88	370	45	0	0
October-08	63	470	68	0	0
June-09	70	390	51	0	0
December-09	91	630	110	0	0
June-10	110	640	71	0	0
December-10	75	460	72	0	0
June-11	63	340	50	0	0
December-11	60	360	52	0	0
June-12	120	710	90	0	0
December-12	53	240	42	0	0
June-13	54	260	39	0	0
December-13	0	150	26	0	0
June-14	33	150	24	0	0
October-14	88	420	54	0	0
June-15	85	310	41	0	0
December-15	42	250	32	0	0
June-16	82	350	61	0	0
December-16	38	290	38	0	0
Jun-17	26	190	31	0	0
Dec-17	41	220	30	0	0
Jun-18	30	260	67	0	0
MCL	7	200	5	5	5

Concentrations reported in micrograms per liter.
Bold values exceed the MCL.
EPA Method 8260B was run. Only chemicals with detections above the MCLs were plotted.

Figure 11
Trends in VOC Concentrations at the Central Wire Union, Illinois Plant for Parameters Exceeding the MCLs in Monitoring Well DGW-1I from 1998 - 2018



DGW-1D				
Sampling Month & Year	1,1-DCE	1,2-DCA	TCE	VC
February-98	4	0	4	0
April-02	24	0	9	0
June-05	88	2.5	31	0
December-05	96.4	5.5	21.6	0
June-06	93	7.46	12	0
December-06	68	6.2	9.7	0
June-07	87	6	13	0
September-07	90	4.4	8.9	0
December-07	67	4.3	46	0
March-08	66	2.8	39	0
June-08	31	2.2	45	0
October-08	24	0	68	0
June-09	8.2	1.7	51	0
December-09	16	2	110	0
June-10	8.1	1.5	71	0
December-10	12	1.8	72	0
June-11	43	2.9	50	0
December-11	23	2.4	52	0
June-12	10	2.4	90	0
December-12	36	6.2	42	0
June-13	2.6	0	0.67	8.1
December-13	0	0	26	13
June-14	2.6	0	0.95	8.7
October-14	30	0	10	0.61
June-15	45	0	12	0
December-15	15	0	3.7	4
June-16	9.1	0	4.3	0
December-16	9.8	0	3.5	3.9
Jun-17	24	0	4.8	2.2
Dec-17	6.4	0	2.5	1.4
Jun-18	2.2	0	1.4	0.56
MCL	7	5	5	2

Concentrations reported in micrograms per liter.
Bold values exceed the MCL.
EPA Method 8260B was run. Only chemicals with detections above the MCLs were plotted.

Figure 12
Trends in VOC Concentrations at the Central Wire Union, Illinois Plant for Parameters Exceeding the MCLs in Monitoring Well DGW-1D from 1998 - 2018